

Ursus,

or the PAST of the CALIFORNIA BEARS

By CHESTER STOCK

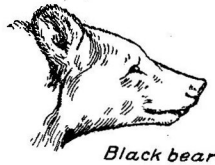
PROBABLY no other animal is so intimately connected with the early occupation and history of California as the bear. Extolled both in fiction and in fact, the part it has played in the lives of the pioneers and early emigrants is commemorated in a measure by its emblematic representation on the Bear Flag and on the Great Seal of California.

Early accounts and later findings definitely establish the presence of several races and species of black bear and grizzly within the boundaries of the State. But with an ever-increasing penetration of their haunts, these creatures no longer possess the pre-eminent position which they once held among the larger game animals of the region. Only the black bear seems to hold its own in the timbered and brush-covered country of the coastal belt of Northern California and along the length of the Sierra Nevada.

Modern times have seen a gradual diminution in range of the grizzlies until today this group of bears has probably reached the vanishing point. Once recorded from practically every mountain range in California where food was plentiful, no grizzly has been certainly identified by man in the past decade, although recurrent stories of its presence give hope that one or more individuals may still be alive in isolated spots of the State.

Tall tales have been told by hunters and by others concerning the size and weight of bears. James Capen Adams or "Grizzly" Adams as he was called back in the 'fifties, because of his prowess in hunting and trapping grizzly bears, is responsible for the statement that the grizzly in California weighed as much as 1500 pounds. It appears now that such estimates were overly generous and that in reality a good-sized grizzly weighed in the neighborhood of 800 pounds. Black bears, on the other hand, are not so heavy; an individual of average size weighing between 200 and 300 pounds.

Bears are known to have been present in the Californian area during the Ice Age and it is quite possible that some of the living races or species are the descendants of creatures dating this far back in geologic time. Predecessors of the black bear, which possessed, so far as we know, a number of points in common with the living type but which differed from this form in having larger molar teeth, are found in cave and asphalt deposits dating perhaps 25,000 to 50,000 years back in time. This extinct species, found at Rancho La Brea, fell victim to the tar traps as did a host of other creatures now extinct including the sabre-tooth cat, great lion-like cat, grim wolf, mastodon, elephant and ground sloth. With it occurs a grizzly, but both types of bears are represented in the tar beds much less frequently than is a third member of the bear family. The arctothere, as the latter is called, has sometimes gone under the name of cave bear but a more appropriate designation is short-faced bear, because of a charac-



Black bear



Grizzly bear



Arctothere

The two upper sketches are from Seton's *Lives of Game Animals*; lower after Merriam and Stock, Carnegie Institution, Washington

istic shortening of the snout or muzzle which it shows in contrast to the true bears like the black or grizzly.

The arctotheres were giant members of their tribe, much larger than the grizzlies and comparable in size to the great brown or Kadiak bears of the Alaska peninsula. Their weight must have exceeded considerably that of the California grizzly and it is conceivable that in some individuals this reached well in excess of 1500 pounds. Differences in size due to sex prevailed among these forms, as among living bears, and the females were distinctly smaller.

Without much question the short-faced bears were among the largest and most formidable members of a varied group of flesh-eating mammals present on the North American continent during the Ice Age. Not only are they found fossil in California, but from discoveries made elsewhere we know that during the Glacial Period their geographic distribution extended from the Yukon to the Mexican plateau. Closely related forms are known likewise from Ice Age deposits in South America. Food was plentiful in those days and this probably accounts in a measure for their wide dispersal. Their great strength, which doubtless gave them but few rivals among the flesh-eaters of their day, fur-

nished perhaps another reason for a wide distribution. Curiously enough, these animals are more closely related to the diminutive spectacle bear, which lives today in the Andean region of South America, than they are to the grizzly, black and brown bears of North America.

More is known about the origin of the short-faced bears than about that of the true bears like the black and grizzly. Some of this earlier history of the bear family is actually revealed in the geologic strata of California. If we step back in time into the period before the Ice Age, the Pliocene as it is called, we find there the ancestors of the short-faced bears. The latter were likewise large and massive creatures with short muzzles. Some years ago remains of them were discovered in Pliocene strata exposed near the Eden Hot Springs in Riverside County.

Nor is this the last clue to the presence of bears or bear-like animals in California. The chain of evidence that has been traced backward in the hope of determining the origin of this branch of the bear family leads ultimately to an unusually interesting type of flesh-eater, a sort of half bear and half dog, in the Miocene period, some five to ten millions of years ago. Some of these connecting links between bears and dogs are found in the well-known Barstow fossil beds that occur in the green hills near Hinkley in the Mojave Desert, west of Barstow.

Always a source of delight and interest, the living bears grow in our esteem in the light of their patrimony. Somewhat tragic is the realization, however, that not only time but Man with his rifle have left them only a vestige of their former grandeur.